Under the Paper Reduction Act of 1995, no		U.S. Patent and Ti	Approved for use through 10/31/2002. OMB 0651-003 rademark Office; U.S. DEPARTMENT OF COMMERCI
TRANSMITTA		Application Number & Confirmation Number	1 40/707 050
FORM		Filing Date	2/24/2004
(to be used for all correspondence after	initial filing)	First Named Inventor	Spilker, Jr.
		Group Art Unit	
		Examiner Name	
Total Number of Pages in This Sub	mission	Attorney Docket Numb	er RSM054001
	ENCLOSURES	(check all that apply)	
Fee Transmittal Form		ment Papers Application)	After Allowance Communication to Group
Fee Attached	Drawin	g(s)	Appeal Communication to Board of Appeals and Interferences
Amendment / Reply	Licensi	ng-related Papers	Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
After Final	Petition		Proprietary Information
Affidavits/declaration(s)	Petition to Convert to a Provisional Application		Status Letter
Extension of Time Request	Power of Attorney Revocation		Other Enclosure(s) (please identify below):
Express Abandonment Request		al Disclaimer	Copies of Cited Documents, Postcard
Information Disclosure Statement	Reques	st for Refund	
Certified Copy of Priority Document(s)	CD, Nu	ımber of CD(s)	
Response to Missing Parts/ Incomplete Application	Remarks		
Response to Missing Parts under 37 CFR 1.52 or 1.53			
CICALAT	LIBE OF ARRU	CANT, ATTORNEY, OR	ACENT
Firm Richard A. Dunning		CANT, ATTORNET, OR	AGENT
or Individual name	,, vi. 		
Signature	222		
Date 4/22	5/04	1/	
	CERTIEIC	TATE OF MAILING	
I hereby certify that this correspondence is be mail in an envelope addressed to: Commission 1450 on this date:	ing deposited with		
Type or printed name Diage Dunning			2313- 4-26-04
Signature Mesue	Munn	vij. Da	ate 4-24-04

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will van depending upon the needs of the individual case. Any comments on the amount of time your are required to complete this form should be sent to the Chief Information Officer, USPTO, PO Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Attorney Docket No.: RSM054001



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Spilker, Jr. Art Unit: Serial No.: 10/787,058 Examiner: Conf. No.:

Title : POSITION LOCATION AND DATA TRANSMISSION USING PSEUDO

DIGITAL TELEVISION TRANSMITTERS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §§ 1.56 and 1.97-98

Pursuant to the provisions of 37 CFR §§ 1.56 and 1.97-98, enclosed herewith is a modified form PTO-1449 listing documents for consideration by the Examiner.

The filing of this Information Disclosure Statement shall not be construed as a representation regarding the completeness of the list of documents, or that inclusion of a document in this list is an admission that it is prior art or is pertinent to this application, or that a search has been made, or as an admission that the information listed is, or may be considered to be, material to patentability, or that no other material information exists, and shall not be construed as an admission against interest in any manner.

This Information Disclosure Statement is being filed:

- within three months of the filing date of the application, or date of entry into the national stage of an international application, or before the mailing date of a first office action on the merits, whichever event last occurred;
- before the mailing of a first official action after the filing of a request for continued examination (RCE) under 37 CFR § 1.114;
- after three months from the filing date of this national application or the date of entry of the national stage in an international application, or after the mailing date of the first official action on the merits, whichever event last occurred, but before the mailing date of the first to occur of either: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise closes prosecution in the application, and:

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450.

Date of Deposit

Signature

Diane Dunning

Typed or Printed Name of Person Signing Certificate

Applicant: Spilker, Jr.
Serial No.: 10/787,058
Filed: 2/24/2004

Attorney's Docket No.: RSM054001

Page: 2

		attached hereto is the fee set forth under 37 CFR § 1.17(p) for submission of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
		Applicant certifies pursuant to 37 CFR § 1.97(e) that:
	.	each item of information contained in this Information Disclosure
		Statement was first cited in a communication from a foreign patent
		~ .
		office in a counterpart foreign application not more than three
		months prior to the filing of this Statement; OR
		no item of information contained in this Information Disclosure
		Statement was cited in a communication from a foreign patent
		office in a counterpart foreign application and, to the knowledge of
		the person signing this certification after making reasonable
		inquiry, no item of information contained in this Statement was
		known to any individual designated under 37 CFR § 1.56(c) more
		than three months prior to the filing of this Statement;
	before	the payment of the issue fee but after the mailing date of the first to occur
	of eith	er: (1) a final action under 37 CFR § 1.113; or (2) an action that otherwise
		prosecution in the application, and:
		Applicant certifies pursuant to 37 CFR. § 1.97(e) that:
		each item of information contained in this Information Disclosure
		Statement was cited in a communication from a foreign patent
		office in a counterpart foreign application not more than three
		months prior to the filing of this Statement; or
		no item of information contained in this Information Disclosure
		Statement was cited in a communication from a foreign patent
		office in a counterpart foreign application and, to the knowledge of
		the person signing this certification after making reasonable
		inquiry, no item of information contained in this Statement was
		known to any individual designated under 37 CFR § 1.56(c) more
		than three months prior to the filing of this Statement; AND
		•
	Ц	attached hereto is the fee set forth under 37 CFR § 1.17 (p) for submission
_	0	of this Information Disclosure Statement under 37 CFR § 1.97(c); OR
Ц		he payment of the issue fee. Applicant requests that the information
		ned in this Information Disclosure Statement be placed in the file according
		CFR § 1.97(i), although the information may not be considered by the
	USPT	
		on relies, under 35 U.S.C. § 120, on the earlier filing date of prior
		o/, filed on, and the documents cited therein are
•		ced, but are not required to be provided in this application under 37 CFR §
1.98(d		
		nformation contained in this Information Disclosure Statement was cited in
		tion from a foreign patent office in a counterpart application, and the
		n was not received by any individual designated in 37 CFR § 1.56(c) more
than th	nirty da	ys prior to the filing of this Information Disclosure Statement. 37 CFR §
1.704(d).	

Applicant: Spilker, Jr. Serial No.: 10/787,058

Filed

: 10/787,058 : 2/24/2004 Attorney's Docket No.: RSM054001

Page: 3

Applicant submits that no fee is required for the consideration of this Information Disclosure Statement.

Consideration of the listed documents and favorable action are respectfully requested.

343 Soquel Avenue, Suite 311

Santa Cruz, CA 95062

Telephone: 831.420.0561 Facsimile: 413.541.0092 Respectfully submitted,

Richard A. Dunning, Jr.

Attorney/Agent for Applicant(s)

Reg. No. 42502

Situte for form 1449A/PTO

APR 2

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to re

2

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

1 Sheet of

spond to a collection of information unless it displays a valid OMB control number.						
Complete if Known						
Appl. No. & Conf. No. 10/787,058						
Filing Date	2/24/2004					
First Named Inventor	t Named Inventor Spilker, Jr.					
Group Art Unit						
Examiner Name						
Attorney Docket Number	RSM054001					

				U.S. PATENT DOCUMEN	TS	
Examiner Initials*	Cite No. ¹	U.S. Patent Do	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	Α	5,157,686		Omura et al.	10-20-1992	
	В	5,166,952		Omura et al.	11-24-1992	
	С	5,920,284		Victor	07-06-1999	
	D	6,078,284		Levanon	06-20-2000	
	Е	6,107,959		Levanon	08-22-2000	
	F	6,137,441		Dai et al.	10-24-2000	
	G	6,317,500	B1	Murphy	11-13-2001	
	Н	6,373,432	B1	Rabinowitz et al.	04-16-2002	
	1	6,374,177	B1	Lee et al.	04-16-2002	
	J	4,555,707		Connelly	11-26-1985	
	К	5,045,861		Duffett-Smith	09-03-1991	
	L	5,481,316		Patel	01-02-1996	
	М	5,510,801		Engelbrecht et al.	04-23-1996	
	N	6,094,168		Duffett-Smith et al.	07-25-2000	
	0	5,774,829		Cisneros et al.	06-30-1998	·
	Р	5,952,958		Speasl et al.	09-14-1999	
	Q	4,894,662		Counselman	01-16-1990	
	R	5,398,034		Spilker, Jr	03-14-1995	
	S	5,323,322		Mueller et al.	06-21-1994	·
	Т	5,504,492		Class et al.	04-02-1996	
	U	5,593,311		Davies et al.	09-14-1999	
	V	10/036,700		Panasik et al.	12-31-2001	
	w	4,652,884		Starker	03-24-1987	
	Х	6,433,740		Gilhousen	08-2002	

	FOREIGN PATENT DOCUMENTS									
	T	Foreign Patent Docume		Patent Document		Date of Publication of	Pages, Columns, Lines,	\Box		
Examiner Initials*	Cite No. ¹	Office ³	^ Number⁴	Kind Code⁵ (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	Τ [©]		
	Y	GB	2 222 922	Α	Spectronics Micro System	03-21-1990				
	Z	GB	2 254 508	Α	Mitchison, et al.	10-07-1992				
	-									

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

APR 2 9 2004

TA TRADENT

→ [+]

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

ຮັ Substitu	ute for form 1449B/PT	0		Compl	ete if Known	
3 .				Appl. No. & Conf. No.	10/787,058	
INF	ORMATION [)IS	CLOSURE	Filing Date	2/24/2004	
STATEMENT BY APPLICANT				First Named Inventor	Spilker, Jr.	
				Group Art Unit	2641	
	(use as many sheets	s as n	ecessary)	Examiner Name		
Sheet	2	of	2	Attorney Docket Number	RSM054001	

Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
AA	PARKINSON, B.W., et al., "Autonomous GPS Integrity Monitoring Using the Pseudorange Residual," Journal of the Institute of Navigation (1988), Vol. 35, No. 2, pages 255-274.	
АВ	RABINOWITZ, M., "A Differential Carrier Phase Navigation System Combining GPS with Low Earth Orbit Satellites for Rapid Resolution of Integer Cycle Ambiguities," <i>PhD Thesis for Department of Electrical Engineering, Stanford University</i> (Dec. 2000), pages 59-73.	
AC	SPILKER, JR., J.J., "Fundamentals of Signal Tracking Theory," Global Positioning System: Theory and Applications (1994), Vol. 1, Chapter 7, pages 245-327.	
AD	VAN DIERENDOCK, A.J., "GPS Receivers," Global Positioning System: Theory and Applications (1995), Vol. 1, Chapter 8, pages 329-407.	
AE	LI, X., et al., "Indoor Geolocation Using OFDM Signals in HIPERLAN/2 Wireless LANS," 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communications, PIMRC 2000, Proceedings (Cat. No. 00TH8525), Proceedings of 11 th International Symposium on Personal Indoor and Mobile Radio Communication, London, UK, Sept 18-21, pp.1449-1453, Vol. 2, XPO10520871, 2000, Piscataway, NJ, USA, IEEE, USA, ISBN; 9-7803-6463-5, Chapter I and III	
AF	RABINOWITZ, M., et al., "Positioning Using the ATSC Digital Television Signal," Rosum whitepaper, Online! 2001, XP002235053, Retrieved from the Internet on 03-13-2003 at URL www.rosum.com/whitepaper 8-7-01.pdf	
AG	EP Abstract/Zusammenfassung/Abrege, 02102666.1	
АН	JP Abstract/ Vol. 007, No. 241 (P-232), 10-26-1983 & JP58 129277 A (Nihon Musen KK) 08-02-1983	
	,	
	AA AB AC AD AE AF AG	item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. PARKINSON, B.W., et al., "Autonomous GPS Integrity Monitoring Using the Pseudorange Residual," Journal of the Institute of Navigation (1988), Vol. 35, No. 2, pages 255-274. RABINOWITZ, M., "A Differential Carrier Phase Navigation System Combining GPS with Low Earth Orbit Satellites for Rapid Resolution of Integer Cycle Ambiguities," PhD Thesis for Department of Electrical Engineering, Stanford University (Dec. 2000), pages 59-73. SPILKER, JR., J.J., "Fundamentals of Signal Tracking Theory," Global Positioning System: Theory and Applications (1994), Vol. 1, Chapter 7, pages 245-327. VAN DIERENDOCK, A.J., "GPS Receivers," Global Positioning System: Theory and Applications (1995), Vol. 1, Chapter 8, pages 329-407. LI, X., et al., "Indoor Geolocation Using OFDM Signals in HIPERLAN/2 Wireless LANS," 11 th IEEE International Symposium on Personal Indoor and Mobile Radio Communication, London, UK, Sept. 18-21, pp. 1449-1453, Vol. 2, XPO10520871, 2000, Piscataway, NJ, USA, IEEE, USA, ISBN; 9-7803-6463-5, Chapter I and III RABINOWITZ, M., et al., "Positioning Using the ATSC Digital Television Signal," Rosum whitepaper, Online! 2001, XP002235053, Retrieved from the Internet on 03-13-2003 at URL www.rosum.com/whitepaper 8-7-01.pdf AG EP Abstract/Zusammenfassung/Abrege, 02102666.1

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.